

**APPLICATION-ASSISTED RECOVERY FROM DATA CORRUPTION IN
PARITY RAID STORAGE USING SUCCESSIVE RE-READS**

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ABSTRACT OF THE DISCLOSURE

[0036] An apparatus or method that tracks the identity of stripe units or group of stripe units from which data has been previously read by an application program running on a computer system. In one embodiment, the present invention stores the identity of previously read stripe units or groups of stripe units in a table. If the application program requests data of one of stripe unit or groups of stripe units whose identity is stored in the table, the requested data is regenerated from parity data and data of the stripe or stripes other than the requested data. This generated data is returned to the application program rather than the existing data stored in the stripe unit or groups of stripe units.